

REMARKS

Applicant replies to the final Office Action dated August 4, 2010, within three months. Claims 1 – 4 and 7 - 8 were pending in the application. The Examiner rejects claims 1 – 4 and 7 - 8. Support for the amendments may be found in the originally-filed specification, claims, and figures. No new matter has been introduced by the amendments. Reconsideration of this application is respectfully requested.

The Examiner rejects claims 1 and 7-8 under 35 USC 112 due to an antecedent basis issue. Applicants amend the claims to clarify the antecedent basis. In particular, Applicant recites a step of generating an element called "replacement management information", and describes what information is included in the management information. Applicant asserts that claims 1 and 7 should therefore have sufficient antecedent basis for "replacement management information". Claim 8 depends from claim 7, and the "replacement management information" in claim 8 has antecedent basis in the feature introduced in claim 7.

The Examiner rejects claims 1-4 and 7-8 under 35 USC 103(a) as being obvious over Park, US Patent Publication 2004/0114474 ("Park 1") in view of Park, US Patent Publication 2004/0223440 A1 ("Park 2") and Hwang, US Patent Publication 2004/0185216 ("Hwang"). Applicant respectfully disagrees, but Applicant amends certain claims and adds new claims to expedite prosecution and to clarify the claims.

Similar to the Office Action dated April 26, 2010, the Examiner states that Park 1 discloses a drive apparatus for performing a pseudo-overwrite recording for a write-once recording medium, the medium including a spare area and a user data area, the drive apparatus receiving a recording instruction including a location to record data, and controlling a recording/reproduction section to record data at a replacement location in the user data area.

As also similarly stated in the Office Action dated April 26, 2010, the Examiner further states that Park 2 is from the same field of endeavor, and teaches a drive apparatus which determines a track corresponding to the location included in the recording instruction; when the determined track is closed or the instruction is before the next writable address, determining whether the data recording in the replacement location in the user data area succeeded; when the recording has failed (i.e., a defect is detected), recording the data at a location in the spare area.

Finally, the Examiner states that the feature added to the independent claims in response to the Office Action dated April 26, 2010, that of "verifying that the recording of the data has succeeded before updating replacement management information", is not inventive in view of the disclosure in paragraph [0029] of newly cited Hwang of verifying recording of data before updating defect management information.

Applicant respectfully asserts that the Examiner may be interpreting the term "verifying" to be equivalent to "checking", rather than "determining" as intended in the claimed invention. Applicant respectfully disagrees with the interpretation of the term "verifying" as being equivalent to the "verify-after-write" technique taught by Hwang; however, to expedite prosecution, Applicant amends the claims to clarify and further differentiate the claims over the prior art. For example, amended independent claim 1 now recites, *inter alia*:

"...generating replacement management information including at least the location included in the recording instruction or the replacement location in the user data area, and the location at which the data is recorded in response to confirming ~~verifying~~ that the recording of the data in the replacement location in the user data area or the location in the spare area has succeeded".

Support for this feature can be found in at least page 139, line 25 to page 142, line 25 of original specification.

Applicant respectfully asserts that Park 1, Park 2 and Hwang do not disclose or contemplate at least the feature of generating replacement management information including the original location (location included in the recording instruction or replacement location in the user data area) and the location at which data is recorded in response to confirming that the recording of the data has succeeded. In particular, Applicants asserts that Park 1 is limited to a method for performing a pseudo-overwrite process, wherein data is recorded in a replacement location in the user data area other than the instructed location, and that the last recordable position of the user data area is changed after the replacement recording, without any suggestion that the success of the replacement recording should be confirmed before further steps are taken (see, for example, paragraphs [0047], [0048], and [0053] of Park 1). Therefore, Park 1 does not disclose or contemplate at least the feature of generating replacement management information in response to confirming the replacement recording process was successful.

Applicant asserts that Park 2 is limited to teaching that, if a defect area is detected in the data area, it is replaced by recording in the spare area, and that the resulting management information is stored, but similarly fails to disclose or contemplate at least generating replacement management information in response to confirming that recording in the spare area has been successful (see, for example, paragraph [0047] of Park 2).

Hwang does not cure the deficiencies of Park 1 and Park 2. Hwang simply describes a device for recording data on a disk, wherein the device uses a "verify-after-write method" to check whether each recording instance was successful or not. When the recording instance was **not successful**, the device saves information indicating that this area is defective and continues with the next recording instance. Once all recording instances have been completed, all saved defect information is stored in a defect management area (see paragraph [0029] of Hwang). Applicant strongly asserts that Hwang is very different from the claimed invention, in that the claimed invention generates replacement management information in response to confirming that the recording **is successful**. Hwang does not disclose or contemplate at least a feature of generating defect management information in response to confirming recording is successfully performed.

Applicant asserts that Hwang further does not teach that the defect management information contains both the original location and the replacement location, but only suggests that the defect management information stores locations of defects (i.e., original locations when recording is not successful). Since the defect management information according to Hwang is generated for cases in which recording is not successful, Hwang does not disclose or contemplate at least replacement management information containing original and replacement locations for successful replacement recordings.

The advantage of generating the replacement management information, in response to confirming that the recording process has been successful, is that multiple replacement procedures in attempting to record a piece of data may be performed without unnecessarily expanding the size of the replacement management information list, as described in page 140, line 15 to page 141, line 10 of originally filed specification. For example, in the claimed invention, the drive apparatus may instruct a recording operation to be performed at a previously written location, perform the recording at a replacement location instead, determine that the recording process at the replacement location failed, and successfully record the data in the spare

area. During this operation, the claimed invention would only update the replacement management information to associate the originally instructed location with the recording location in the spare area, and not perform such an update for the failed replacement recording. This has the advantage of saving space on the recording medium by minimizing management information, thus allowing more data to be recorded.


For at least these reasons, Applicant asserts that amended independent claims 1 and 7 should be novel and inventive in view of Park 1, Park 2 and Hwang.

Claims 2-4 and 8 variously depend from claims 1 and 7, respectively, so Applicants assert that claims 2-4 and 8 are patentable for the same reasons as set forth above, in addition to their own respective features.

In view of the above remarks, Applicant respectfully submits that all pending claims properly set forth that which Applicant regards as the invention and are allowable over the cited references. Accordingly, Applicant respectfully requests allowance of the pending claims. Should the Examiner have any suggestions to place the application in even better condition for allowance, Applicant requests that the Examiner contact the undersigned representative at the telephone number listed below. The Commissioner is authorized to charge any fees due or refund any overpayment to Deposit Account No. 19-2814, including extension of time fees, if needed.

Respectfully submitted,

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